SARA SKYWAVES

W5SRA

July 2024

President's Message

Hello July!

I hope this newsletter finds everyone well and that you had an exciting Field Day. Here at SARA we had 10 people show up and we made several contacts CW, SSB, and digital. We operated as a 3A classification. All that attended had a great time. We had a couple make their first HF contacts, what fun is that! If you were not there you missed a great chance to visit and get to know more about your fellow club members. Brandon, KI5SXE and Jeff, KI5DDX were our heroes. Of the 38 contacts we made as a club both made 13 contacts Brandon on CW QRP and Jeff on phone.

With that being said, you have another chance to get out and operate in the field coming on July 20th . SARA will be sponsoring a POTA (Parks on the Air) activation at Spring Creek Forest Preserve, 1770 Holford Rd, Garland at 9:00 AM following SARA's Eyeball QSO that morning.

Speaking of SARA's Eyeball QSO, we meet for breakfast every Saturday morning at Ballard Street Café, 112 N. Ballard Ave, Wylie. Again, a great way to get to know your fellow club members. Also bring technical questions as there is a wealth of knowledge sitting around the tables.

Be sure to attend this month's meeting. Bob Devance, K5CRX will be returning with a presentation on antenna analyzers. He will be bringing several of them with him. He will be glad to answer any questions you may have.

Also at this month's meeting I will be resharing a presentation by John, W5JWS from 2022 "What does it take to be an officer of SARA".

73,

Andy Barnes, W5KZJ

JOIN US ON THE AIR

ALL SARA operations and all Sachse ARES/RACES operations are being conducted on the W5SRA repeater

The Sachse Amateur Radio Association uses the W5SRA repeater in Sachse, TX:
Frequency: 440.350 MHz
Shift: +5MHz
PL tone: 110.9 (Tx & Rx)

SARA Weekly Information Net
Monday, 7:00 PM on the W5SRA Repeater

The W5SRA repeater is accessible via EchoLink and AllStarLink.
Sachse Radio Club **AllStarLink Instructions**: (Click Here)
Please use node 528831 to connect using AllStarLink

Next General Meeting

Thursday, July 11 @ 7:30 PM

North Pointe Church of Christ

7030 S State Hwy 78,

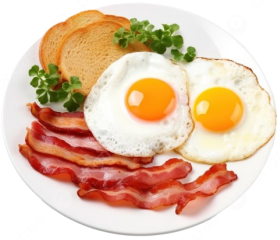
Sachse, TX 75048

Topic: Antenna Analyzers

Bob DeVance - K5CRX

QSO Breakfast

Meet us each Saturday at 7:30am at **Ballard Street Cafe**, 112 N. Ballard in downtown **Wylie**. People begin showing up around 7:00 with most showing up by 7:30 AM.



A quick overview of Digital Operating Modes (From ARRL)

A great number of digital operating modes have developed, largely because of the availability of personal computers, soundcards, and advanced software. But amateur digital communication began in earnest in the late 1940's (if you don't count Morse as a digital mode!) when hams worked out techniques of connecting mechanical Teletype keyboard/printers to amateur gear using FSK and AFSK modulation. There are too many different modes to list individually, but here are some of the major ones:

- FT8 - In 2018 it is by far the most popular digital mode for award chasing and working DX. It is described in this news story. The WSJT-X software can be downloaded from Joe Taylor's web site. Gary ZL2iFB has written an FT8 Operating Guide.
- Packet - One of the first "modern" digital modes, packet radio transmits data in groups or "packets" of 10s or 100s of bytes. This allows improved throughput and error control. The basic protocol for packet radio is AX.25. Transmission speeds typically range from 300 bps on the HF bands to 1200 and 9600 bps on VHF or UHF.
- PSK31 (or BPSK31, Binary Phase Shift Keying 31.25 Hz) Probably the most popular keyboard to keyboard digital mode today, PSK31 is normally generated and decoded using PC soundcards with one of many available software packages. PSK31 occupies very small bandwidths (approximately 100 Hz) and offers effective communication at low power.
- RTTY (radio teletype) is the original keyboard to keyboard mode, based on the 5-bit Baudot code, began with mechanical Teletypes as mentioned above. It is still a popular communications mode, but now uses PCs for coding and decoding, using 170 Hz frequency shift keying at a 45.45 baud rate -- 60 words per minute.
- Other Modes Many other data modes are available for experimentation, including Pactor and Clover that enhance packet operation, and MFSK, Olivia, Throb, DominoEX, MT63, and Thor which are other modes mainly for PC/soundcard operation. AMTOR is a special form of RTTY that provides error detection and correction.

More detail is available on the ARRL Website here:

Digital Modes

Next Board Meeting:

July 25, 2024 via ***Google Meet*** at this link.

ANY MEMBER IS WELCOME TO JOIN US!!

Find us on Facebook!

Did you know you can keep up with events and conversations between newsletters by joining the Sachse Amateur Radio Association on Facebook? Click the Facebook link above.

Sunday Public Service Net

W5SRA Repeater

8:00 PM

Frequency: 440.350 MHz
Shift: +5MHz
PL tone: 110.9 (Tx & Rx)

Upcoming W5SRA Laurel Testing

July 20th - 9:00am to 11:00am at 7030 S. State Hwy 78, Sachse, TX 75048. Contact:
W5JWS (John)
214.799.9927
w5jws@arrl.net
for additional details and to verify testing will occur.

UPCOMING EVENTS

Every Monday - "SARA Weekly Information Net" 7:00pm W5SRA Repeater

440.350 MHz,
Offset +5.00 Mhz,
PL tone: 110.9

Future SARA General Meeting Topics

July 11th - ***Antenna Analyzers—Bob DeVance K5CRX***
Aug 8th - ***TBD***
Sep 12th - ***"Club Elections"*** To serve from Sep 2024—Aug 2025

Murphy CERT now on W5SRA Repeater

Every third Wednesday the Murphy CERT net be on the club repeater. The net will activate at 19:00 local. The access parameters for the W5SRA repeater are at the top of this column. Might be fun to listen in, and become involved in the Murphy CERT.

Parks on the Air (POTA) Club Activation at Spring Creek Forest

On July 20, 2024, SARA will be sponsoring a POTA (Parks on the Air) activation at Spring Creek Forest Preserve, 1770 Holford Rd, in Garland at 9:00 AM following SARA's Eyeball QSO that morning. If you've never made a radio contact outside of Texas, stop by. Any licensed Ham (Technician, General or Extra) is welcome. Help us get enough contacts to get credit for a new activation for POTA Park #US-4423, Spring Creek Forest Preserve!

If you know of any upcoming events that would be of interest to the members of the Sachse Amateur Radio, please forward the details to:

newslettereditor@sachseradio.org

for inclusion in the next edition of Sky-Waves.

Cheap Antennas

HF on a shoestring? Well, here's one hint: **Use wire antennas!**

Single band vs. multiband

The cheapest antenna is a single band antenna. You cut it to length to operate on the band (and the part of the band) that you want to use. To do this, you need some time to goof with it, and you need a device to measure the SWR. If you can't afford that device, borrow one.

Start with the wire longer than necessary, and cut down in small increments until the proper SWR is achieved. (Don't try to "cut up"... it won't work). For a guide, the approximate half-wave dipole length can be computed by the simple formula: L(in feet) = 468 / f (frequency in MHz). The 1/4 wave monopole length is half of this.

This formula doesn't produce an exact result. But it will get you in the ballpark. Always start longer and adjust down. You can put the wire through the end insulator and wrap it back rather than cutting it.

Once the antenna is properly cut, you won't need an antenna tuner to operate on the section of the band you cut it for. If you have an SWR measuring device - keep it around, just in case something in the system goes bad. Maybe the antenna blew down in a storm. Maybe the coax connector corroded. Stuff happens.

The take here is, you can operate HF on a shoestring. The cheapest option is to operate on one band, with a single band, cut-to-length wire antenna. If your primary operating time is during the day, your band will probably be 20 meters. If you operate primarily at night, it will be 40 meters.

Multiband wires

You can operate a multiband wire without an antenna tuner... but it is tricky. There are several types of multiband wires... and the challenges depend on which one you pick.

EFHWs

One strategy is the end fed half wave (EFHW) strategy. Many of the ham bands are arranged in harmonic order. That is, the 40 meter band is about twice the frequency of the 80 meter band. The 20 meter band is twice the frequency of the 40 meter band. The antenna lengths are also multiples of each other. If you have a half wave monopole wire on 40 meters, it would be around 67 feet long. At that length, the antenna impedance is several thousand ohms. EFHW antennas use an "unun" (transformer) that cuts this impedance down. Typically, EFHWs use 49:1 transformers that cut the impedance down by almost a factor of 50. This will give you an antenna that is close to 50 ohms on even multiples of whatever frequency it is cut for. If it is cut for a half wave at 40 meters, you should also have decent SWR (under 2:1) on 20 meters and 10 meters.

These antennas can also be used on frequencies that are not even multiples, but it requires an antenna tuner. If you have an antenna tuner, there are other antenna options that you can pursue, and they might be better than an EFHW.

Trap Antennas

Another strategy is to embed "traps" (resonant circuits) in the antenna wire. The traps basically create an antenna that electrically has more than one "length". Traps do have some loss associated with them, but so does a 49:1 unun used in the EFHWs.

This is another antenna - like the single band wire, or the EFHW - that has to be carefully adjusted to the proper length in order to work.

The advantage of a trap antenna is that it will be much shorter than the EFHW. It might fit where you don't have room for a half wave antenna.

Off-Center Fed Dipoles

There are many different variants of these things. I don't use them, because they are dipoles - and I like shorter (monopole) antennas for convenience. But OCFDs also work on multiple bands.

"Random" Wires

If you have a tuner, you can operate a "random" wire antenna. These can be dipoles or monopoles. The trick is, make the length of the antenna such that, on any band... it isn't at either the high impedance point (1/2 wave for a monopole, full wave for a dipole), or at the low impedance point (1/4 wave for a monopole, half wave for a dipole). The perfect "random" wire antenna might be around 450 ohms on multiple bands that you want to use. When that impedance is cut by a 9:1 transformer, it's going to be close enough to 50 ohms for the antenna tuner to resolve.

There is loss in this approach. There is loss in the transformer, the coax, and the tuner. The typical loss in a ham installation like this is 3 dB, or half of the power. The loss can be reduced by using a remote tuner at the antenna, instead of in the shack.

One Antenna

If I could only have one wire antenna for a portable operation, and I had a portable antenna tuner (which I do)... the one wire I would carry would be a 1/4 wave ("resonant") on 30 meters. That's approximately 23.4 feet long. That antenna will be nearly 3/8 wave on 20 meters, which will have decent gain, and is tunable with most antenna tuners. It will be a bit short (lower gain) on 40 meters, but still usable, and tunable. On 40 meters, the signal from a 23 foot monopole antenna will be down about 2 dB from a 1/4 wave on 40 meters. But a 1/4 wave on 40 meters is over 33 feet long, and it will be a half wave antenna on 20 meters (high impedance, requiring a 49:1 transformer). So, if you can only have one wire... and you have a tuner... and you operate 20 meters in the daytime and 40 meters at night... a 23 foot wire is a great choice. And, it works for 30 meters, too.

Counterpoise Wires

With the exception of the EFHW, you need a counterpoise wire. Monopoles aren't really monopoles. They are dipoles, and the other half of the dipole is the counterpoise wire.

Masts

In the field, I use a 20 foot, fiberglass mast. This is not a "mast" per se. It's a cheap, stream fishing pole. These things work great as long as the wire is light weight.

If you run QRP, you can use light weight wire. I use 24 ga. stranded wire in the field.

They make fishing pole holders (rod spikes) that enable you to just poke these fiberglass masts into the ground. No guy ropes.

A lot of hams forgo the mast, and they throw wires into trees. There are problems with that. Problem number one is, what if there is no tree? Or, if the tree is like, 3 feet tall?

Problem number two is getting a wire up high enough into the tree. Now we're talking about arborist's throw bags, or other schemes.

Problem number three is stuff getting stuck in the tree that won't come back down.

Remember the Peanuts cartoon with the "kite-eating tree"? Well, there are trees that eat antennas, too.

Portable Antenna Tuners

I use a manual tuner that fits in a jacket pocket. There are portable auto tuners now - you hook everything up and just push a button. A lot of higher-end portable HF radios have tuners in them as well.

If you can afford a tuner... don't leave home without it. Stuff happens out there, and if you don't bring your portable tuner, you will wish that you had.

Managing the Finances

The cheapest, simplest system is a single band wire. Probably the next simplest is the end fed half wave wire, but it is twice the length. A compromise might be a multi-band trap antenna. If you can afford a tuner, you can use a "random" length wire (that really isn't random in length).

After that, there are commercial vertical pull-up masts with adjustable base load inductors. These can get rid of the tuner (the adjustable base load inductor IS the tuner), but you still have to have a way to measure the SWR.

Get on the Air

If you have limited means, you can still get on the air with HF. Use wire antennas. If you have the means to afford one piece of wire, cut it for the band you want to use most. If you have enough money for a tuner, cut a 23 foot wire and use it for 20, 30, and 40 meters.

Don't let the price of store-bought antennas keep you from running HF. And, you know what? The store bought antennas... most of them don't work any better than a piece of scrap lamp cord does.

"Too-short" Antennas

Remember... monopole antennas shorter than 1/4 wave (or dipoles shorter than 1/2 wave) suffer in performance. Figure that if your monopole antenna is half of a 1/4 wave in length... your signal strength (received and transmitted) will decrease by almost half. There is no magic here, and there is no rabbit that you can pull out of a hat to change the physics - no matter how much money you spend.

Just because an antenna tunes up doesn't mean that it is efficient.

RF Safety

Don't forget RF safety. RF safety is a lot simpler if you run QRP, and QRP is a lot simpler and far better performing if you run CW. If your budget is slim, maybe a good first purchase would be a code practice oscillator. “This is Titanic. CQD. Engine room flooded.”

73,

- Jim Eatman KG5WAW

SARA Club Officers for 2023-2024

Current officers for the Sachse Amateur Radio Association, per the election held at the September 2023 General Meeting.

President	Andy Barnes	W5KZJ
Vice President	Mike Crow	W5MJC
Secretary	Kathy Wingo	KI5LEY
Treasurer	Linda Smyder	K5LCS
Public Information Officer	Jeff Feldman	KI5DDX
Director at Large	John Smyder	W5JWS
Newsletter Editor	Ev Wingo	KI5LEX

JOIN THE ARRL

As an ARRL Affiliated Club, SARA receives a commission for every **new** ARRL membership and **renewal** we submit to ARRL Headquarters and get to retain a portion of the dues for each regular membership submitted.

Clubs retain **$15 for each new membership** OR lapsed membership (of two years or more). A NEW MEMBER is defined as any individual who has never been a member of ARRL or any individual who has not retained a membership for two or more calendar years prior to the application submission.

Clubs retain **$5 for each renewal**. A RENEWING MEMBER can renew at anytime, even before their current membership term expires.

You can download the ARRL Affiliated Club Membership form here.

Once downloaded, complete the form and get it to the club Treasurer along with a check made out to 'Sachse Amateur Radio Association' and we will submit your ARRL membership application/renewal to ARRL Headquarters. (**NOTE**: ARRL Headquarters is working on getting an on-line version working so that you can go directly to them and the ARRL will send the club a check for any new or renewed memberships.)

Latest Update on the ARRL Cyber-attack

Updated 6/21/2024

ARRL staff continue to work with outside industry experts to ensure that all servers have been remediated, tested, and all data has been confirmed. We have also been working to ensure that the network is secure.

As noted in previous updates, Logbook of The World® servers and data are fine and working. LoTW® has dependencies on other servers, for example membership data, which have not yet been returned to service. We will announce when LoTW is open for user access. We anticipate that the queue will grow quite large once live, and we are evaluating ways to manage that potential issue.

As a reminder, 2024 ARRL Field Day is this weekend. We note that some groups have scaled back or cancelled their outdoor plans due to excessive heat or severe weather threats. Please use caution this weekend (visit Heat.gov for heat and health information). Enjoy Field Day. The Field Day bulletin will be transmitted from W1AW and K6KPH as scheduled (see PDF schedule). Your Field Day results may be uploaded to https://field-day.arrl.org/fdentry.php or mailed to ARRL after the event.

This story will be updated with new developments.

Updated 6/14/2024

We are continuing to make progress on restoring the ARRL network and many related systems and databases. Thank you for your continued patience and understanding as we carefully address and restore affected services.

While the Logbook of The World® server, Online DXCC, and related user data are secure and unaffected, we have taken the precautionary measure of keeping the services offline until we can ensure the security and integrity of our networks.

The ARRL Learning Center (learn.arrl.org), our online course and training hub, is accessible. The Learning Center includes content from across a variety of amateur radio topics and interests. The Learning Center will require a slightly different login experience while we continue to restore interconnected databases. Users who have logged into the Learning Center before will need to use their EMAIL ADDRESS and use the 'forgot my password' function to set a new Learning Center password. Users who are new to the system will sign up/register using their email address. When ARRL systems are fully restored, user accounts will be reconciled with membership accounts again.

ARRL Field Day is June 22 – 23, 2024. Visit www.arrl.org/field-day for rules and other resources to help prepare your participation. Following the event, online entries will be supported as usual at https://field-day.arrl.org/fdentry.php.

The ARRL Volunteer Examiner Coordinator is continuing to process Amateur Radio License applications to the FCC. We have processed all applications from exam sessions uploaded by Volunteer Examiners through June 12, 2024. Sessions mailed to ARRL VEC and received by us are processed within 1 – 2 business days.

The new Amateur Extra-class Question Pool will be effective beginning July 1, 2024. New Extra-class exam booklet designs will be supplied to VE teams as soon as possible. Teams may also contact the ARRL VEC after July 1 for an emailed version in the interim.

NEWSLETTER ARTICLES

Working on a project that you think the club members would be interested in? Read a good HAM related article somewhere? Send articles to SARA Newsletter Editor: newsletteredtor@sachseradio.org

ACTIVITIES COMMITTEE

SARA vice-president Mike Crow, W5MJC heads up the SARA Activities Committee. Anyone who is willing to help or has ideas may contact Mike at: vicepresident@sachseradio.org

SARA BRANDED GEAR

We now have two suppliers for SARA gear. Both of these companies have our logo on file.

HamThreads will do hats, shirts, jackets and vests. They can do single items. HamThreads is in Saginaw.
https://www.hamthreads.com

SARA NAME BADGES

If you need a SARA name badge please go to:
https://namebadge.com/sachse

WARNING: CW can become habit-forming!

ELECTIONS

Club Officer Elections are coming up in September. You must be a current-paid member as of the regular club meeting in September to vote in the election.

If you are interested in standing for election to one of the club officer positions, please reach out to any current club officer OR email the:
Public Information Officer

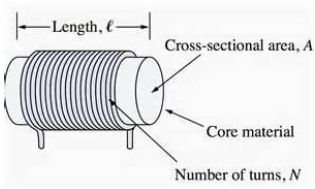
Qualifications of Officers. A member of the Sachse Amateur Radio Association may serve as an officer provided he/she holds a valid amateur radio license. To hold the office of President, Vice-President, or Treasurer, a person must have been a member of SARA for at least one (1) year prior to the time of election. For all other elected offices, a person must have been a member of SARA for at least six (6) months.

President. The President shall preside at all meetings of this club and conduct the same according to the rules adopted. The President shall enforce due observance of this Constitution and By-Laws, decide all questions of order, sign all official documents that are adopted by the club, and none other, and perform all other customary duties pertaining to the office of President including the establishment of all committees. The President shall serve as an ex officio member of all committees. The President may appoint a Parliamentarian. Shall be a voting member on all business of the Board of Directors.
Vice-President. The Vice-President shall assume all the duties of the President in the absence of the latter. The Vice-President shall be the chairperson of the Activities Committee and shall be a member of the Business Committee. In the event of a vacancy in the office of President, the Vice-President will assume that office. Shall be a voting member on all business of the Board of Directors
Secretary. The Secretary shall keep a record of the proceedings of all meetings including meetings of the Business Committee, keep a roll of membership, carry on all correspondence and read communications at each meeting. It shall be the duty of the Secretary to keep the Constitution and By-Laws of the club and have the same with him or her at every meeting. The Secretary shall permit the same to be consulted by members upon request. Within three months of assuming office, the Secretary shall furnish a copy of the constitution to each member. The secretary will also be a member of the Business Committee. Shall be a voting member on all business of the Board of Directors.
Treasurer. The Treasurer shall receive and receipt all monies paid to the club and keep an accurate account of all monies received and expended. The Treasurer shall pay no bills without proper authorization by the club or its officers constituting a Business Committee. At the end of each quarter, the Treasurer shall submit an itemized statement of disbursement and receipts. The treasurer will be responsible for timely filing of all documents required by the state and federal governments and will document this to the board of directors. The treasurer will be a member of the Business Committee. The Treasurer shall make available to the membership the finances of the club on an annual basis, to be presented at the September Meeting. The treasurer will file the required financial reports with the Texas Comptroller and with the Internal Revenue Service annually by the due date for such documents and will report this action to the organization. The Treasurer, and at least one other officer of the club, will have a review of the previous year's account statements in the month following annual elections. Shall be a voting member on all business of the Board of Directors.
Public Information Officer. The public information officer shall be responsible for external promotion of the club to the local community. He/She maintains the club "website" with upcoming ham radio-related events and opportunities to demonstrate amateur radio to the general public at special events. The public information officer would also be responsible for the club social media accounts as an Administrator and would be responsible for getting Network Control Stations for weekly nets. Shall be a voting member on all business of the Board of Directors.
Newsletter Editor. The newsletter editor shall be responsible for the publishing of SARA newsletter. He/She is required to abide by these bylaws governing publication of the newsletter. Shall be a voting member on all business of the Board of Directors.
Director at Large. The director at large is elected by the general membership to serve on the board of directors. This position provides the tie-breaker vote and represents the general membership of the club to the board of directors.

Lite Tech Corner—Episode 4: You can be Inducted!

Continuing our series on electronics components, we take up the inductor. So what is an inductor anyway? Most commonly, it's a coil of wire wound around a core of some sort. While just a straight piece of wire has inductance, for our purposes here, it's negligible. The core around which the wire is coiled may be air, wood, plastic, iron, ferrous oxide, etc. Each has its effect on the inductor.

The inductor's function is to hold an electrical charge in the form of a magnetic field for a period of time and then induce current flow back into the inductor as the magnetic field collapses across the turns of wire. As current begins to flow through the inductor, a magnetic field around the inductor is produced. There is some resistance to this change of current flow in the inductor as the magnetic field builds. If the current remains steady, the magnetic field remains steady. When the current stops flowing, the magnetic field collapses back onto the inductor producing current flow in it. This current flow has the effect of smoothing or steadying the flow of current as it replaces the current flow that stopped – especially true of DC circuits. This action is particularly valuable in smoothing the current output from DC power supplies. To increase the inductance value, more turns of wire may be added and/or the core material may be changed. An iron core will provide more inductance than an air core for example.



Inductors come in many sizes and values. Their value is measured in Henrys (honoring Joseph Henry). The henry is too large a value for most uses hence we generally start with millihenrys (one thousandth of a henry) or microhenrys – one millionth of a henry. Inductors are also rated by the voltage they can withstand without arcing between turns of the coil and by their current-carrying capacity. These currents range from a few milliamperes to many amperes.

The charge/discharge cycle time for an inductor in an AC circuit is determined by the inductance value, the frequency of the AC signal, and any resistance or capacitance associated with its circuit. Hence, a very accurate time circuit (oscillator) can be built using a coil and a minimum of components. Inductors (and variable inductors) are often used in creating tuned circuits that pass only a narrow range of frequencies or filter out a range of frequencies. Variable inductors were often used as the main tuning component on older radio sets.

If two coil windings are place on the same core in close proximity, we have a transformer when used in a AC circuit. The magnetic field created in the first coil is coupled via the core into the second coil to produce current in it also. By adjusting the number of turns in the coils, we can produce a step-up or step-down transformer.

By using a capacitor and a coil, we can create a "tank" circuit. Remember that the capacitor also stores a charge, but it is an electrostatic charge. If a voltage is applied to and then removed from the tank circuit, the capacitor charges and then discharges into the coil when the input voltage is removed. The coil builds up its magnetic field until the capacitor is discharged and then its collapsing magnetic field induces current flow which re-charges the capacitor (minus some loss, of course) and the process repeats. The frequency of the charge/discharge process can be determined mathematically very easily. If an AC signal is applied to the tank, it will continue the cycle indefinitely. As with the capacitor, these components and circuits are often used to tune our radios for best selectivity and performance.

One more application for the inductor is AC blocking. We generally say, "An inductor passes DC but blocks AC." Since the coil is just a length of wire, DC can pass through it easily once the magnetic field is established. The inductor resists the changing AC signal due to its magnetic field build-up and collapse.

Inductors are used in combination with resistors and capacitors to provide a wide variety of stable circuits that we use in our radios. Next time, we'll look at the lowly diode – how do you define "one-way"?

73 - Bob DeVance, K5CRX

Sachse Amateur Radio Club Field Day 2024.

June 22, 2024 was the date for the annual ARRL-sponsored amateur radio field day. This year the Sachse Amateur Radio Club participated in the activities. First, perhaps a little history about Field Day is appropriate. From Wikipedia:

> Field Day is an annual amateur radio contest, widely sponsored by IARU regions and member organizations, encouraging emergency communications preparedness among amateur radio operators. In the United States, it is typically the largest single emergency preparedness exercise in the country, with over 30,000 operators participating each year. Field Day is always the fourth full weekend of June, beginning at 18:00 UTC Saturday and running through 20:59 UTC Sunday.
>
> Since the first ARRL Field Day in 1933, radio amateurs throughout North America have practiced the rapid deployment of radio communications equipment in environments ranging from operations under tents in remote areas to operations inside Emergency Operations Centers (EOCs). Operations using emergency and alternative power sources are highly encouraged, since electricity and other public infrastructures are often among the first to fail during a natural disaster or severe weather.
>
> To determine the effectiveness of the exercise and of each participant's operations, there is an integrated competitive component, and many clubs also engage in concurrent leisure activities (e.g., camping, cookouts). Operations typically last a continuous twenty-four hours, requiring scheduled relief operators to keep stations on the air. Additional contest points are awarded for experimenting with unusual modes, making contacts via satellite, and involving youth in the activity.

The club reserved the pavilion at the City of Sachse Salmon Park. The facility has commercial power available, and this was utilized for all operations. The limited club participation was most likely due to the Texas summer heat.

SARA club members get setup for field day

The club's location for QSOs was north Texas (NTX) with a class of 3A (3 transmitters, all portable transmitters (A)).

The club results submitted to ARRL:

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Entry received at: 2024-06-24 20:30:22
Call Used: W5SRA
GOTA Station Call: (NONE)
ARRL/RAC Section: NTX
Class: 3A
Participants: 10

Club/Group Name: Sachse Amateur Radio Association
Power Source(s): Commercial
Power Multiplier: 2X
Preliminary Total Score: 266
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Bonus Points:
          Public location                          100
          Entry submitted via web                   50
          Total bonus points                       150

Score Summary: (Cabrillo log/dupe sheet file: 2024 FIELD DAY
W5SRA.dup)

                  CW  Digital  Phone  Total
   Total QSOs     13      7      18
 Total Points     26     14      18

Grand Total 58
Claimed Score = (QSO points x power mult) = 116
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Sachse Amateur Radio Association
General Meeting Minutes
June 13, 2024

Start time: 7:30 p.m.

Location: North Pointe Church

Facilitator: President Andy Barnes W5KZJ

Everyone stood and joined in to say The Pledge of Allegiance.

Members and guests introduced themselves with names and call signs.

Attendees:

Andy Barnes W5KZJ	Ev Wingo KI5LEX	Mike Crow W5MJC
Kathy Wingo KI5LEY	Rusty Cain KG5WFM	Doug Priebe AG5HB
Lisa Barnes KG5OBK	Mike Haliburton KJ5BLP	Harold Liles KJ5FSI
Mike McCafferty N5MMC	Brandon Thomas KI5SXE	

New Members:

Telise Murray N5OVQ
Wiley Murray KG5WM

Presentation:

Vice President Mike Crow W5MJC led the discussion on Field Day activities. We will begin setting up around 10 a.m. with a start time of 1 p.m. There will be 4 band filters with three (3) radios for use. If you wish to bring your own equipment, feel free to do so. There will be a tent with AC should we need to cool off. We will be working as a 3A-Commercial classification with the call sign of W5SRA and paper logs. At the end of the event, someone will compile the logs for submission to ARRL.

We need to know if you will be participating in Field Day as the club will provide cold water and we will be ordering pizza for dinner around 6 p.m.

Andy Barnes W5KZJ has ordered Marine RG8x 3' jumpers for the band pass filters in the amount of $38.94.

MOTION: Ev Wingo KI5LES made a Motion for the club to reimburse Andy Barnes W5KZJ for the jumpers in the amount of $38.94.
Mike Crow W5MJC seconded the Motion.
Discussion, none.
Motion carried unanimously.

Business Meeting:

President's Report – Andy Barnes W5KZJ

The next Board Meeting will be held on Thursday June 27th at 7 p.m. via Google Meet. There is a link in SARA Skywaves, all are welcome. The next General Meeting will be on Thursday July 11th at 7:30 p.m. at North Point Church.

Upcoming General Meeting Subject Plans:

- *July – Bob DeVance, K5CRX – TBD*
- *August – TBD*
- *September - Elections*

Future General Meeting Topics:

Ideas for upcoming meetings
Please help with subject matter

Review Previous Meeting Minutes – Kathy Wingo KI5LEY

The minutes for May 2024 were in the newsletter and on the website.

MOTION: Kathy Wingo KI5LEY made a Motion to approve the May minutes.
Brandon Thomas KI5SXE seconded the Motion.
Discussion, none.
Motion carried unanimously.

Treasurer Report – Linda Smyder W5LCS (not present)

May 2024 Treasurer Report was presented to the members.

Report available to members upon request to the Treasurer.

MOTION: Kathy Wingo KI5LEY made a Motion to approve the May Treasurer Report. Minus ($200)
Ev Wingo KI5LEX seconded the Motion.
Discussion, none.
Motion carried unanimously.

Public Information Officer's Report - Jeff Feldman KI5DDX

- Saturday QSO Breakfast @ Ballard Street Café @ 7:30 a.m.
- SARA's Weekly Information Net, Monday at 7:00 p.m.
- Next Laurel VE Session June 15th @ North Pointe Church, 9 – 11 a.m. cancelled

SARA Information Net

The SARA Information Net is held on Monday, at 7:00 p.m. Weekly Information Net Control:

June 17th	Andy Barnes W5KZJ
June 24th	Jeff Feldman KI5DDX
July 1st	Mike Crow W5MJC
July 8th	Ev Wingo KI5LEX
July 15th	Andy Barnes W5KZJ
July 22nd	Mike Crow W5MJC
July 29th	Ev Wingo KI5LEX
August 5th	Andy Barnes W5KZJ

Newsletter Editor's Report - Ev Wingo KI5LEX

The June newsletter has been posted to the website and emailed to membership (distribution 162).

Submissions for the newsletter are due by the 25th of each month. The goal is to have the newsletter out on the 1st of each month.

Article Ideas:

- Projects that you are working on or have completed,
- Events and activities related to amateur radio,
- Articles you have read in other publications,
- Member Spotlight
    - Please submit about 250-300 words.

Remember, our distribution is beyond our membership and our content could encourage other people to come get involved!!

Send pictures and articles to newslettereditor@sachseradio.org

Club Activity:

Parks on the Air, July 20th 9 a.m., Spring Creek Forest Preserve, 1770 Holford Road, Garland.

Future Classes for:

Antennas
Soldering

Other Business:

Quilts of Valor – Kathy Wingo KI5LEY extended the invitation for members to nominate a veteran to receive a Quilt of Valor at the Farmersville Quilt Guild Veteran's QOV presentation to be held in November. If you want to nominate someone, contact Kathy Wingo KI5LEY for the form.

Adjournment:

MOTION: Kathy Wingo KI5LEY made a Motion to adjourn the meeting at 8:00 p.m.
Mike Crow W5MJC seconded the motion.
Motion carried unanimously.

Respectively Submitted by
Kathy Wingo
KI5LEY

Sachse Amateur Radio Association
Board Meeting Minutes
June 27, 2024

Start time: 7:00 p.m.

Location: Google Meet

Facilitator: Andy Barnes W5KZJ, President

The invocation was offered by Andy Barnes, W5KZJ.

President Andy Barnes W5KZJ thanked everyone for attending.

Attendees:

Andy Barnes – W5KZJ	Ev Wingo – KI5LEX	Kathy Wingo – KI5LEY
John Smyder – W5JWS	Linda Smyder – K5LCS	Jeff Feldman – KI5DDX

1. **Presentation for July**

   Bob DeVance, K5CRX will do a presentation on Antenna Analyzers at the July meeting. Tentatively have spoken to Jim Eatman, KG5WAW who will do a presentation in August.

   ACTION: No action to be taken.

2. **POTA Activation**

   This event is scheduled for Saturday, July 20th, 9:00 a.m. at Spring Creek Forest Preserve.

   ACTION: No action to be taken.

3. **Budget for 2025**

   Budget will be created and presented to the membership in October. It should be a mirror of this year's budget as the current budget includes all the club's current expenses.

   ACTION: Begin looking at the budget for membership review in October.

4. **Board of Directors Members**

   Election of the Board of Directors is conducted in September. Members must have paid their yearly dues prior to the September meeting to qualify to vote in the election.
   John Smyder W5JWS; Linda Smyder K5LCS; Mike Crow W5MJC; and Ev Wingo KI5LEX are stepping down from their positions.

ACTION: A review of the bylaws will be carried out to see what needs to happen should there not be enough people to fill the board.

5. **Other Business**

There was some discussion on how to get more members to participate in the club activities. It was suggested that most have calendar overload, and they must set priorities.

At Field Day, held last Saturday, June 15th, there were 10 people who signed in. Included in the 10, there were several visitors (which are always welcome) but by 4 p.m., there were only three people left. While it was hot it was decided to shut down.

6. **Adjourn**

MOTION: Kathy Wingo KI5LEY made a motion to adjourn the meeting at 7:16 p.m. John Smyder W5JWS seconded the motion. Motion carried unanimously.

Respectfully submitted.
Kathy Wingo
KI5LEY

SARA Skywaves

Is published each month for the purpose of informing Sachse Amateur Radio Association members of current events and issues of interest to amateur radio operators. Articles and suggestions are always welcome. Articles that appear in this publication may be reproduced provided credit is given to ***SARA Skywaves*** and to the original source.
SARA is a Texas Non-Profit 501 (c)3 corporation based in Sachse, TX.

SARA Newsletter Editor
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Wylie, TX 75048-1764

Weekly Information Net Control Station Script

This net control script is a ***SUGGESTED*** script for the NCS to use to conduct the weekly net. NCS should feel free modify this script as needed to encourage maximum participation by all net participants.

(NCS Reads the text in black. Instructions to NCS are in (red).)

(A list of potential questions to ask the net attendees can be found here.)

(Preamble)

Good evening all Radio Amateurs and welcome. This is (Your Call), my name is (Your Name), and I will be your Net Control Station for this session of the Ham Radio in Sachse Weekly Information Net. This net meets every Monday night at 7:00 PM local time, on the W5SRA repeater, frequency 440.350 MHz, with an offset of +5.000 MHz, and using a PL tone of 110.9, for the purpose of discussing topics of interest to SARA members and others.(pause) This is a Directed Net. Please do not transmit unless directed to do so by Net Control. If the repeater should go down, everyone should switch to the Sachse emergency simplex frequency 146.400 MHz.

Also, if at any time you have an emergency that is an imminent threat to life or property, break in by saying*"Priority", "Emergency", or "Break Break"* followed by your call sign, and the net will recognize your station and will stand by.

(Pause)
*(*A reminder—Net Control Should ID about every 10 minutes.)

(Check-Ins)
As we start check-ins this evening, we will break them down into two categories.

1. Portable, mobile and short time check-ins.
2. General Check-ins

We will initially stand-by for portable, mobile and short time check-ins. Please, come now with your phonetic call sign, followed by your name, followed by your callsign alphanumerically.

(Recognize short time, portable and mobile check-ins individually.)
(Go through the list and allow each station to make any comments that they might have.)
(Ask for any additional check-ins.)

We will now standby for general check-ins. Please, check in now with your phonetic call sign, followed by your name, followed by your callsign alphanumerically.

(Go through the list and allow each station to make any comments that they might have. Then ask for more check-ins – this might need to be done 2 or 3 or more times – until there are no more check-ins.)
(Make sure you give your own call-sign regularly and allow others to ID appropriately as well.)
(ASK for any additional check-ins.)

(Club Announcements)

We will start off with club announcements from club officers. Any club officer on the net with an announcement, please come now with your call sign.

(Aways make certain the weekly QSO eyeball breakfast is announced)

SARA meets for breakfast every Saturday morning at 7:30AM at Ballard Street Cafe, 112 N. Ballard St. in downtown Wylie. People begin showing up around 7:00 with most showing up by 7:30AM.

(General Announcements)

At this time, we will take stations with announcements of interest to the amateur radio community in general.

(When Ham Operators check-in initially, they may tell you if they have an announcement for later in the Net. Make note of those who have announcements and recognize them first.)

(TECH CORNER and SWAP NET)

Is there anyone who would like to ask a technical question, or share information on something they would like to buy or sell? Remember no haggling over price on the air. Please come now with your call sign.

(Late Check-Ins)

Before we end this Net, I will take late check-ins. If there are any late check-ins, please give your call sign and name slowly and clearly.

(Write down and read back each call sign).

(Wrap-Up)

This is (your name and call). We wish to thank all who participated in the net this evening. This net will meet again next Monday night at 7:00PM local time on the W5SRA Repeater. The Sachse Amateur Radio Association meets the second Thursday of each month at 7:30PM at North Point Church of Christ, 7030 Hwy 78, Sachse , TX. The Sachse Amateur Radio Association Board of Directors meets the fourth Thursday at 7:00PM on Google Meet. A link for this meeting is in the club calendar.

(Close the net)

This concludes the Ham Radio in Sachse Weekly Information Net. If you would like more information about the Sachse Amateur Radio Association, please visit our web site at www.sachseradio.org. This is *(name and call sign)* and we now return the W5SRA repeater to its normal use. Hope to hear from you next week. 73 everyone!